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LECTURES.

LECTURE ON THE INFLUENCE WHICH THE PREVAILING METHODS OF EDUCATION HAVE ON THE PRODUCTION OF DEFORMITY IN YOUNG PERSONS OF BOTH SEXES.[1]

BY BUCKMINSTER BROWN, M. D.

I HAVE been requested to make some remarks, this evening, on the influence which the prevailing methods of education have on the production of deformity in young persons of both sexes.

What I have to say will be almost exclusively confined to the effect of position in causing scoliosis, or "Rotato-lateral curvature of the Spine," [2] an affection which, as is well known, prevails to a great extent in the community. Lateral curvature is more commonly met with in girls than in boys. The dress-maker is far more cognizant of the extent to which it prevails than any one else, not excepting the physician.

To bad positions in writing, drawing, at the piano, etc., also while standing during recitations; to carrying weights, heavy books, for example, more on one arm than the other, to too much exercise of one arm, while the other is comparatively idle, can undoubtedly be traced the majority of these curvatures. But it is not malposition alone that causes the trouble. It is likewise due to long continuance in one position, which at first may be a good one, but which if continued for a considerable length of time becomes changed, from simple fatigue of a certain set of muscles, into a bad one. These relax; sometimes one muscle or set of muscles gives way; sometimes another set. The burden of support is consequently thrown, to a great extent, upon the ligaments which bind the vertebræ together. These in a young person are soft; their elasticity is soon overcome, and they are stretched. The chain of bones of which the spine is composed yields. The muscles and ligaments no longer do their work, and the superincumbent weight of the head and shoulders bends the chain, or perhaps the preponderance of other muscles, not so easily fatigued, disturbs the equilibrium,

[1] Delivered before the American Social Science Association, Department of Health.

[2] On Spinal Weakness and Spinal Curvature. By W. J. Little, London, 1868.

and a curve is the result. This curve may commence in the dorsal region, between the shoulders, or it may begin in the loins.

At first the bend is easily straightened. Afterwards the intervertebral substances, which may be spoken of as cushions between the vertebræ, become depressed on the side toward which the spine has curved, and this depression finally becomes permanent. The pressure being continued, the bone itself becomes implicated, and the sides of the bodies of the vertebræ become narrowed, wedge-shaped, and likewise the articulating processes are shortened.

Worse than this, partly from the effect of position, partly from peculiarities connected with the supports by which the vertebræ are united, a very curious change occurs in the relation of one bone to the other. A vertical flexion takes place, a cork-screw-like or spiral twist, which is probably synchronous with, or precedes the lateral curve, — a twist so decided that the proper anterior surfaces of the vertebræ are turned partly round upon their own axes, and look toward the convexity, and the spinous processes toward the concavity of the curve.

This, as primarily the effect of position, may be exemplified by the attitude generally taken while writing, drawing, etc.

For example, in drawing, the right arm and shoulder are usually put forward; the hips remain square, or perhaps a little turned in the other direction. The right shoulder is elevated, the right shoulder blade projects, the head generally inclines towards the right side, and the upper portion of the trunk bends forward. Thus one part of the body fronts in a different direction from the other. I describe only one of the malpositions which are commonly assumed.

In this way a rotation of one or more of the small bones upon another takes place. This rotation is very insidious. As a rule it alway accompanies scoliosis properly so called.

There is a simple lateral or serpentine curve of the spine which not infrequently takes place as a sequel to pleurisy, pneumonia, or other intracostal disease. In these and other rare cases arising from incidental causes there is, generally, no rotation of the spine upon its axis. They are so different in their origin and in their manifestations from the class with which we are now concerned, that they possess no especial interest for us at the present time.

The spiral twist may make great progress, and not show any signs by which a common observer will suspect that it exists, and often it will escape the notice of those much more accustomed to such things. It will be understood how easily a person may be thus deceived by looking at this plaster cast of a curved spine, which I procured in London some years since. (See Plate I.)

It is very interesting in many points of view. Looking at it from behind, we see that the projecting ridge of bone, the spinous processes,

is nearly straight. It is by this line that most persons judge whether the spine is straight or otherwise. In tracing it down it seems almost a straight line. (See Plate I.) If the model is turned round there is a great change in the appearance of the curve, showing how much more extensive the internal or anterior curve is than the external. (See Plate II.) Again, — I set it on the desk, — you notice that the spiral twist begins at the upper part, just where you would naturally expect that it would occur in the position usually assumed for drawing, etc. Then there comes the curve of compensation in the loins, and the corkscrew twists in the other direction.

This model demonstrates how straight a spine may appear, yet be in reality the subject of an extraordinary curvature. In the cast the rotation movement extends to a quarter of a circle in the centre of the curve. The alterations in the neighboring parts are, in a case as advanced as this, sufficient to indicate that great changes are taking place in the relations of the internal organs. These photographs, which I will pass round, will give an idea of these alterations in some cases. The cast also explains why it is that the shoulder blade on one side projects, and on the other sinks in. It shows that the ribs are thrown out on one side of the column by this vertical twist in the spinal bones to which they are attached, forcing backwards the shoulder blade as they bulge out. It makes plain why there is an appearance of swelling in the loins on the opposite side. This swelling may be noticed in the photographs. It frequently resembles a tumor or an abscess, and has sometimes been mistaken for one or the other. This prominence is due to the rotation of the transverse processes on that side. These points of bone which should be buried beneath the mass of muscles that lie on each side of the column push backward the muscles, and thus a factitious tumor presents itself.

This plaster mold explains also the projection of the hip, which, unfortunately, is often the first evidence that something is wrong which attracts the attention of the mother, when the curve is what is called a lumbar curve, that is, when it begins in the loins. In cases where it commences between the shoulders it is the displacement of the scapulæ which is first noticed. You will see that before either projection can take place, the curvature must have made considerable progress.

The changes in front are equally striking: the prominence of the ribs on the side the reverse to the one on the back; also the peculiar manner in which the arm appears to be attached to the shoulder, in consequence of the displacement of the shoulder blade.

These are some of the characteristic features of one class of spinal curvature which are exemplified by the specimens before us. The case from which the cast was taken was an unusual one, but some of the photographs present others nearly as severe.

What are the practical lessons which we may learn from what has been said? The great point is that the child or student should, while at school or at his studies, have frequent change of position, — that no one posture be kept up for any considerable length of time. This I consider of the first importance. The boy or girl who lives out-of-doors, playing, romping, climbing, etc., never has lateral curvature.

The reason that constant change of position is so important has been previously stated. The muscles of the back have much to do. Let their work be frequently varied. If they are unusually thin and undeveloped, let them have, from time to time, complete rest, either well supported in a comfortable chair, or in the horizontal position.

The spinal muscles — I repeat it — must not be allowed to become weary by long continuance in one position, especially if that position is not one in which the back is well sustained by properly adjusted support. The position in standing must be carefully watched. A most pernicious habit, and one which is very often to be noticed in schoolgirls (I think I have observed it in girls more frequently than in boys), is that while we are talking to them, or during recitations, especially if they are much interested in what is going on, they are standing upon one leg. This position is assumed involuntarily, and it is always, or almost always, one and the same leg upon which the weight is thrown. The effect of this is easily understood: one side of the pelvis is lifted up, curving the spine in the loins; the opposite leg is advanced in front of the other, twisting the pelvis and rotating the vertebræ. Of course the curve of compensation takes place between the shoulders. One is depressed, the shoulder blade gradually projecting, and with the change, and in fact assisting to produce it, again occurs the spiral twist.

The youth passes many hours at school. It is of great importance that the seats should be so constructed as to give support to the back. Equally or more important is it that the desk should be of proper height, and should not be at such a distance from the seat as to cause the pupil to stoop when writing or reading. It should be so arranged that it can be drawn towards the student when seated, thus enabling him or her to sit upright, with the back against the back of the seat while using the pen or pencil, or while studying.

At the piano the chief difficulty is again the same, — the long-continued effort to keep the back erect. Some muscles inevitably give way. In embroidery, in drawing, the same thing occurs, combined also with error in position. I have visited rooms in which drawing was taught, where all, — male and female, — with scarcely an exception, were sitting in a position not only to curve but to twist or rotate the spine, and in most the posture was such as to produce a triple curve. Horseback riding is a healthy exercise, but the seat of a girl upon the horse is not a natural one. Perhaps it can be so arranged as to have the pelvis

square with the horse, or directly across. I have been convinced that some of the worst and most indomitable twists in the loins with which I have had to deal, spiral twists I mean, have arisen from being too much in the saddle. In many instances there probably is constitutional debility, and perhaps hereditary tendencies, rendering certain individuals more liable to this complaint than others. But in persons who appear otherwise perfectly strong, healthy, even robust, I have seen severe rotary curves which could be distinctly traced to the operation of some one or more of the causes I have mentioned.

The theories which have been proposed to explain the cause or causes of lateral curvature are numerous. It may be well to refer briefly to some of the most prominent. Debility of the muscles which are attached to and which support the spine is one, and is perhaps the most generally received. Unquestionably, weakness and relaxation of muscles and ligaments are important elements in the formation of spinal curvature. Muscular contraction,[1] paralysis, hereditary tendency, the greater use of the right arm than the left, the unequal distribution of the internal organs, malformation or irregular growth of the vertebræ or of the ribs inserted into them, have each been adduced by writers on this subject as originating the complaint we are considering.

Various hypotheses have likewise been advanced to account for the vertical rotation to which I have referred.

One writer[2] has brought forward a complicated theory that would take pages to explain, in which he attributes the trouble chiefly or solely to the action of the serratus magnus muscle. He considers that the natural thoracic respiration of women, aided by the fact that one lung is larger than the other, and one arm is heavier than the other, is the real and efficient cause of the deformity. He maintains that the influence of these causes is greatly increased by tight lacing and by clothing compressing the abdomen. This author cites as a "crucial proof" of the correctness of his theory that among Arabs, Hindoos, and others who use a loose form of dress such deformity is all but unknown. The originator of this theory, confirmed by this remarkable crucial test, can hardly have taken into consideration the fact that Arab and Hindoo women not only do not lace tightly and clothe unnaturally, but also do not write much, or draw, paint, embroider, ride sideways on a horse, or occupy themselves in the innumerable arts, amusements, or employments to which the cultivated European or American is so much devoted, and in which, as usually practiced, the position is so unnatural. Likewise, this theory does not explain cases which from time to time present themselves in young girls who have never worn tight dresses, but who have

[1] Guérin.

[2] The Causes and Treatment of Lateral Curvature of the Spine. By Richard Barwell. 1868.

lateral curvature with severe lumbar rotary twist. This has been traced, even in children, to sitting through many hours of forced erectness at school; to sitting at needle-work, or, in one instance, to carrying weights mostly on one arm and with the elbow supported upon the ilium, thus causing rotation in the loins; or under rare circumstances to riding much on horseback. At the present time I have two such cases under treatment, occurring in children between six and nine years of age.

Another explanation of rotary action of the vertebræ has been founded upon the physiological lateral or circular movement possessed by the anterior portion of the spinal column, the posterior being more firmly held by ligaments and muscles. Connected with this explanation is the theory that vertical pressure is the direct cause of lateral curvature, and with it necessarily of rotation.[1]

The abnormally constrained attitudes which are assumed in many of the employments and amusements of civilized life, and which are involuntarily assumed when the spinal muscles are overfatigued, favor and increase the physiological action to which reference is here made.

The true ætiology of spinal deviations, lateral and rotary, can be found only in the peculiar yet very common faults of position which I have previously described. The alterations which take place in the form of the bones, by which the rotation is increased and rendered permanent, were well described by Mr. Alexander Shaw many years since. His portrayal of these changes can be best given in his own words: —

"If we attend to the natural structure of the spine, it will be seen that whilst we lean the body to one side, the pressure is thrown almost exclusively upon the articulating processes of that side; these processes, delicate as they are, being the only bony structures which check the lateral movements of the trunk. Hence, when a habit is acquired of inclining to one side, or of resting upon one hip, as in sitting, the sharp edges of these small joints of bone receive the weight of the entire body. But as the articulating processes are remarkably soft, and imperfectly formed at the age of puberty, it follows that they will become wasted by absorption when this position is long persisted in, and an inequality of the length of these two lateral props on which the vertebræ rest posteriorly will be the consequence, those of the concave side being shorter than those of the convex. Fifth, in lateral curvature of the spine we have a distinct demonstration that the articulating processes give way more extensively than any other parts of the column. This is evinced by the rotation which the spine makes in its perpendicular axis at the same time that it inclines laterally. The joints of the articulating processes being situated posteriorly, as well as laterally, the spinal column cannot yield in their direction without wheeling partially round;

[1] The Cause of Rotation in Lateral Curvature of the Spine. By A. B. Judson, A. M., M. D.

and it is owing to this rotation that the transverse processes and the ribs are directed obliquely forward upon the concave side, and obliquely backwards upon the convex side of the curvature, thus giving rise to a fullness or swelling on the one hand, and a depression or sinking inwards on the other." [1]

Mr. Shaw accurately depicts the pathological changes in scoliosis, but his theory of the primary cause of rotation is not satisfactory. If the spinal column could not yield laterally without at the same time "wheeling partially round," then the side curves, which are the occasional result of intracostal affections and of rachitis or spondylitis, would always be attended by this phenomenon. The fact that simple curvature or curvatures without torsion do occur we have previously noticed.

I must briefly refer to another side of this question, in regard to the effects of the present methods of education, — overaction of the brain. Too much mental stimulus has an undoubted effect as one of the predisposing causes of spinal curvature. Mental rest combined with other appropriate conditions will sometimes cure the trouble when in its incipient stage. That this physical result, this effect on the muscular and ligamentous system, should arise from overaction of the mind may appear to some a strange phenomenon. If we consider a few moments it will be a matter of no surprise. Scoliosis occurs most frequently at an age when the vital powers, the nerve force, so to speak, is concentrated to a great extent in the important work of bringing about that change in the system which is to result in maturity. In addition to this it has to keep in active working order all the usual complicated arrangements by which this wonderful machine, the human body, is enabled to perform its accustomed tasks. We must be careful not to call too much upon this vital power, this nerve force, not to divert it too much in other directions, not to concentrate it too much upon head work. If we do we shall most assuredly have cause for regret. In common with the rest of the organization, the intricate apparatus by which the spinal column is held in position will suffer, and all the more speedily will it become deranged from the fact that while the remainder of the organism is comparatively in repose, the spinal muscles are making a constant effort to retain the trunk erect.

It is impossible for me at this time to examine all the causes from which lateral curvatures may arise in our common methods of education. Our attention has been chiefly confined to those connected immediately with schools. I have not commented upon the debility of the system which originates in illy ventilated rooms, or, what is quite as bad or worse, draughts of cold air, etc. These do their part. Upon such matters others will speak to you more fully than I can do.

[1] Medico-Chirurgical Transactions, vol. xvii., London, 1832, quoted in Lectures on Curvature of the Spine. Adams, London, 1865. Pages 126, 127.

Gymnastic exercises, — calisthenics, military drills, — boat rowing, etc., are all serviceable in preserving health and symmetry, if used with moderation, and with special reference to the peculiarities of the individual. On the other hand, I have seen severe injury, and even disease of the spinal nerve or membranes, which has originated in their immoderate employment, or where due consideration has not been given to the pupil's idiosyncrasies.

There are other branches of this subject which should receive our attention. I had but a brief notice of preparation for this evening, and I have had only time to refer to some of the more prominent points of a theme which deserves serious consideration.

A CASE OF HYDROPHOBIA.[1]

BY CHARLES EDWARD BANKS, M. D., PORTLAND.

On the 14th of February, 1878, George McF., night watchman at the Portland Rolling Mills, was bitten in the fleshy part of his thumb by a dog. The circumstances are as follows: Mr. McF., feeling somewhat lonely in his long night patrols, and thinking that he would be better protected from danger, purchased a large watch-dog, which was said to be a cross between a coach-dog and a bull-dog. The animal was fully developed, being about two years of age, and although he was much attached to his master, apparently, yet he was very cross to strangers. It is understood that this was the reason his former owner disposed of him. The dog became suddenly ill, and hid himself away in the stable a few days before the accident, and Mr. McF. entered the building in search of him. When he had discovered his hiding-place, he began to pet him as usual, but the dog raised his head and deliberately bit the right thumb of his master severely. Mr. McF. then drove him out of the stable, and he was not seen in that vicinity for three or four days; at the expiration of which time, a son of the deceased found him again in the stable one morning, having entered during the previous day unknown to them. He was then ugly and sullen, and the gentleman drew his revolver in readiness to protect himself from any further manifestations of his anger. It was a fortunate precaution, as the animal made a spring at him while he was harnessing his horse, but a well-directed bullet finished him. Subsequent investigation revealed a place where the dog had gnawed at the stable door during the night to get free. At the time of the injury, Mr. McF. was fifty-five years of age, and, until within two years, had been in the habit of using intoxicating liquors, though his inclinations assumed the form of occasional sprees. Since his reformation the family of the deceased

[1] Read before the Cumberland County (Me.) Medical Society.

have thought that his health had not been as good as before, but the change, if any, may have been due to the sudden relaxation of the artificial stimulants. Otherwise there was nothing wanting, either physically or mentally, to make up the full measure of his general bodily health. The wound in the thumb healed very readily without treatment of any kind, and up to the day of his death only a small cicatrix was left to remind him of the unlucky bite. The fact that he had been bitten by a sick dog, however, kept clinging to him, despite his efforts to forget it, and his frequent mention of the affair and his anxiety as to the result showed that fear was indelibly impressed on his mind. About the 10th of May following, one week before his decease, Mr. McF. felt a little unwell, though there were no positive symptoms of any particular trouble. His wife noticed that he brought back about all of the lunch she had prepared for his night-watches, but he continued at his work, and the family never once thought that his indisposition was caused by the bite. On Sunday night, May 12th, he experienced difficulty in swallowing a cup of tea, but made no mention of it, and from that time till Tuesday he ate but little food. Indeed, such was his aversion to it that the aroma of the cooking in an adjoining room was so offensive to him on Monday that all culinary operations had to be suspended. Soon he noticed a peculiar nervous sensation in his right arm, which resembled a spasmodic neuralgic pain, and extended from the thumb to the shoulder. On Tuesday night he went to his watching post as usual, and notwithstanding his fast he felt comparatively well when he left home. As the morning dawned, however, he began to grow worse, having chills, pain in the stomach, and extreme nausea, and laid down before the furnace to warm himself. Obtaining no relief from this, he determined to remain till the workmen came, when he returned home, and vomited a small amount of mucus.

On the morning of Wednesday the family physician, Dr. H. N. Small, of Portland, was summoned, and his first impression of the case was that the man had become chilled, and, knowing his previous habits of dissipation, supposed it had affected him rather more than usual. Morphia powders were left, and one eighth gr. was ordered to be given every two hours. At that time he was extremely nervous, feeling as if something were choking him. The doctor strongly suspected delirium tremens, but was informed by the family that he had not drank any liquor, to their knowledge, for two years. His strange look, however, led the doctor to anticipate some new developments, and he left minute directions of procedure, and orders to summon him if any fresh complications ensued. Early in the afternoon he was again called, and the messenger reported that on taking a piece of ice into his mouth to relieve thirst he ejected it suddenly, and with so much force that it went

across the room. On arrival the doctor learned from diligent inquiry that he had been bitten, and the patient, eying him keenly as he acknowledged it, asked if it was the cause of his present sickness. For the sake of the mental effect the doctor gave him an equivocal reply, and injected one fourth gr. morphia, being now fully convinced of the character of the disease. Early on Thursday morning he was again summoned, and, in company with Dr. F. H. Gerrish, visited the patient, finding him excited, nervous, and quite weak from long fasting, loss of sleep, and spasms, which were reported as having occurred during the night previous.

To make the diagnosis certain, the doctors tried the various tests, such as the mention, the sound, and the sight of water, to all of which he responded with fearful accuracy. Full doses of jaborandi were ordered, and, after another large injection of morphia, he was left to a trial of the new drug. Early in the afternoon word was brought that the medicine could not be obtained in the city, and thus it will be noted that, to within twelve hours of his death, he had not had any specific treatment. The doctor invited Dr. Thayer to visit the patient with him, and while they were there, in the afternoon, he had a terrible spasm, which eclipsed all former ones in length and distressing character of the struggles. During all this time his mind had been unimpaired, and his conversation on every topic was calm and sensible. He was very enthusiastic in recounting his experience in the late war, and produced his journal and official documents of enlistment, promotion, and discharge with evident satisfaction. He had arisen from the bed to get some one of these papers when he felt the spasm approaching, and after warning his attendants to disperse, lest he should injure them, he went into the terrible struggling peculiar to this malady. His mouth was filled with a ropy, sticky saliva, which he would attempt to expectorate, but failing in this would claw it out with his hands. If there had been any doubt in their minds before as to the nature of the disease, this last exhibition of the latent power of his nerve force made it perfectly clear. Feeling that these hours were to be his last, and with a knowledge of the rarity of such cases in our midst, the attending physician invited Drs. Dana, Gordon, and Weeks to be present, and they all united in confirmation of the diagnosis. A consultation was then held as to the best method of palliative treatment in view of the inability to obtain jaborandi. The deliberation resulted in recommending hourly injections of one half gr. physostigma venenosum, or calabar bean, alternating with rectal injection of one oz. whisky and one scruple of chloral. The writer was then summoned to remain in attendance during the night to fulfill the directions as set forth by the council. On arrival, at ten o'clock, Mr. McF. was sitting up in the bed, which by this time was in a very dilapidated condition.

His respiration was then spasmodic, as in fact were all his movements, and his attempts to converse were at times checked by labored expectoration, or by slight spasms. The popular idea that hydrophobic patients in their sufferings bark and bite like dogs was not supported in fact or fancy in this case. By stretching a vivid imagination his spasmodic inspirations might be likened to the snapping of a dog, but otherwise nothing indicated it. He wished for all the fresh air we could allow, and insisted on having the outside doors opened. At 10.30 P. M. I informed him of my desire to make an injection by the rectum, and the attendants, misapprehending my intention, brought an empty tin dish. This induced a fresh spasm, and it was some time before I could calm him down enough to proceed. According to his desire he was smothered in the bed-clothes and held by two strong men, while I inserted the nozzle of a Davidson syringe, carefully guarded by cloths to prevent regurgitation of liquid on his buttocks. The injection consisted of one oz. of whiskey and one scruple of chloral hydrate. At 10.50 P. M. he arose from the bed, and expressed a desire to urinate, and the attendants held the vessel while he voided his water. At this time, notwithstanding the vessel contained urine previously passed, in full view, and though he heard the sound of his own water running into the vessel, there was not the least exhibition of excitement. This seems to me to be a curious and perhaps important point, and may serve some future investigator in determining the pathology of this disease, whether it is purely of a reflex nature, brought on by the action of specific animal virus, or whether it is a condition induced by mental epiphenomena of the voluntary or imaginative cerebral centres. We have seen that the sight of a tin dish induced a spasm, from the supposition that it contained water, and yet the actual sight and sound of it from a natural source produced no discomfort whatever. Possibly, as he could not associate the thought of drinking with the urine, the sight of that kind of fluid did not excite the peculiar spasms.

11.20 P. M. He arose from the bed and started for the water-closet out-of-doors to have a passage from the bowels, and seemed quite provoked that I refused to let him proceed farther. This movement was quite free, and defecation was accomplished without difficulty.

11.45 A. M. I injected one half gr. phys. ven. into the calf of the leg; it was accomplished with ease. Soon, however, he became excitable, thrashing his hands and feet spasmodically, pulling clothes off, and talking incoherently. Several severe spasms occurred then, and the rest of the bedstead was destroyed. In one of these struggles a powerful man, weighing about two hundred pounds, in trying to hold him was thrown back with terrific force against the wall, without any apparent effort. The patient was always aware of the approach of the spasms, and requested the attendants to prepare for them by seizing him. He

told us that he could not help behaving so, and assured us that he would not hurt any one by biting or scratching. Undoubtedly he realized then the character of his illness, and knew the possibility of communicating it.

12.30 A. M. Injection, per rectum, of one oz. whisky, one scruple chloral, and one gr. morphia. He soon became quiet, and from that time till 1.50 A. M. slept well. When he awoke he was as rational as ever, and said that he had no feeling in the calf of his leg. I then gave him a hypodermic injection of one half gr. physostigmin in one dr. whisky. He then called his sons, and had a private conversation about business affairs. At 2.45 A. M. pulse 100, and patient quiet; evidently very weak and failing. Three A. M. Injected one oz. whisky, one scruple chloral hydrate, and one gr. morphia, after which there were no more attempts to use medicine. Patient soon became restless, moaning, and made many efforts to vomit and expectorate. He muttered considerably, and said, "I am roaming in my mind." This was the first indication of loss of mental activity. He called for a paper and his eye-glasses, and attempted to read, but said that "something was wrong, and things were upside down." Four A. M. He was unconscious, and there was no pulse at the wrist, extremities cold, respiration slow, stertorous, and sometimes lost. 4.15 A. M. He was suddenly seized with a frightful titanic spasm. He rose up in the bed, fell back with opisthotonos, and remained stiff in that position till his death, which occurred in about five minutes, when the tension was relaxed.

It seems to me that an important line of argument may be deduced from this case, which has reference to its production. What is the relation of animal contact to the disease known as hydrophobia? Does the character of the bite, being generally a punctured wound, acting in some occult way on the cutaneous nerves, engender general lesion of the entire neurotic system? Is not the similarity between tetanus and this disease attributable to the action on the eccentric nerves primarily? Or, with the fact in view that the peculiar phenomena of hydrophobia are produced only by the bites of certain animals who do not have cutaneous perspiration, shall we assign it to a vitiated saliva? In this case there seems to have been an important factor silently at work, for the patient told me only a few hours before he died that he had been dreading this for weeks past. Who shall say what influence this great shadow of death provoked in his bodily condition, and how much the constant consideration of a dreaded result excited the attack? It seems very probable that, in his lonely night walks, brooding over the circumstances of the accident, and counting the chances of his life, there might have followed a mental condition perfected to excite the hydrophobic spasms.

RECENT PROGRESS IN MEDICAL CHEMISTRY.

BY WILLIAM B. HILLS, M. D.

URINARY CHEMISTRY.

Albuminuria. — Dr. W. Moxon[1] describes a form of albuminuria before unrecorded, to which he gives the name *albuminuria of adolescents.* The persons in whom the albumen is found are young men (he has had no opportunity of examining the urine of girls) between the ages of sixteen and twenty-two. Albumen is not present at all times, but is never absent for any length of time, and is usually found in the urine passed after breakfast. There is, in these cases, no indication of present or previous disease. The albuminuria continues over a period varying from a few months to three years, and usually ends in complete recovery. Dr. Moxon has never met with this condition of things at other periods of life, and has so often seen it in young men that he considers it a disordered state peculiar to this time of life. He refrains, for the present, from any extended theoretical discussion of these cases; but as he has usually noticed, in addition to the albumen, a large quantity of calcic oxalate in the urine, he thinks it possible that morbid material in the urine may induce an active irritation of the kidney.

Dr. Clement Dukes[2] gives notes of several cases of this form of albuminuria. He has sometimes found the albumen in considerable amount, though generally there is only a trace. In some cases the albuminuria lasted a few days only, disappearing without treatment, returning, however, with every chill or error in diet for some months. In others it was more persistent, disappearing only on a milk diet, or when the patient was placed in bed, reappearing, however, if the patient got up and ate a full meal. Sometimes, when the patient got up, and confined himself to a milk diet, the albuminuria was not observed. When kept warm in bed he could eat a full meal without producing the faintest trace of albumen. Dr. Dukes suggests that the hypertrophy of the heart at puberty and the increased arterial tension, causing hyperæmia of the kidney, may explain the occurrence of the albuminuria. He considers the albuminuria occurring at puberty to be the result of some exciting cause, such as an error in diet, which increases the natural hyperæmia of the organ beyond what it can stand. When the patient is kept warm in bed, and the skin is thus made to assist the kidney, the albumen disappears, as a rule, whatever the diet, the work of the kidney being diminished and the arterial tension lessened. If the patient is up, the arterial tension is still further increased

[1] Guy's Hospital Reports, 1878, page 233.

[2] The British Medical Journal, November 30, 1878, page 794.

by taking food; the blood serum transudes, and albumen is found in the urine. If milk only is taken the natural hyperæmia of the kidney and the amount of urinary solids are so little augmented that there is no albumen.

T. Morley Rooke [1] and John Ferguson [2] have noticed similar cases. They have found that the urine passed first upon rising is, as a rule, free from albumen, while that passed during the day contains varying quantities. Dr. Rooke's patients were young girls between the ages of fourteen and sixteen. He noticed, as did Dr. Dukes, that if the patients were put to bed, or kept in a recumbent position, the albumen disappeared altogether, reappearing, however, when they left their beds.

Professor Leube [3] has tested the urine of a large number of persons who, upon careful examination, showed no indications of any local or general disease, in order to determine whether albumen can be detected in the urine of persons otherwise perfectly healthy. He examined the morning urine (that first passed upon rising) of one hundred and nineteen soldiers, and detected albumen in the urine of five. The midday urine of these five persons also contained albumen, and in three of the five the amount was larger than in the morning. He also found albumen in the midday urine of fourteen of the one hundred and nineteen whose morning urine was free from albumen. The urine in these fourteen cases was passed directly after hard labor, in the shape of marches or drills of several hours' duration, during which time the soldiers were without food or drink. No casts or blood corpuscles were found in any of the cases, and the albumen disappeared with rest. In one case the urine was free from albumen for two successive days, but upon the third day, after a battalion exercise of four hours, contained a distinct trace of albumen, which disappeared in a short time and was absent the following day. Leube determined the amount of albumen in two cases: in one it was 0.068 per cent., in the other 0.037 per cent. He concludes that in a majority of cases the urine of healthy persons is free from albumen, but that in rare cases, in a completely normal condition of the body, there is a slight yet distinct albuminuria, which is comparatively frequent if bodily exertion precedes the secretion of the urine.

Dr. Fürster [4] has examined the urine of drunkards with reference to the presence of albumen. He did not find it constant in simple or chronic drunkards, but it occurred in forty per cent. of his cases of delirium tremens, and the amount of albumen was directly proportional

[1] The British Medical Journal, October 19, 1878, page 596.
[2] The British Medical Journal, October 26, 1878, page 627.
[3] Virchow's Archiv, 1878, lxxii., page 145.
[4] The Practitioner, December, 1878, page 450.

to the intensity of the delirium, and varied with it. In drunkards suffering from nephritis, the amount of albumen increased or diminished with the delirium.

Drs. T. L. Brunton and D'Arcy Power[1] have endeavored to distinguish the different albuminous bodies in the urine by determining the temperature at which albuminous urines coagulate. They found that the temperature of coagulation varied not only in the urine of different persons and different diseases, but also at different times in the urine of the same person. These variations are due, in part at least, to the acidity and to the amount of neutral salts of the albuminous solution. In addition, however, they found, upon experimenting with solutions of serum and egg albumen, that the amount of urea present had a decided influence upon the temperature of coagulation. A solution of blood serum in two thousand parts water, when containing one tenth to one fourth per cent. urea, coagulated at 160° to 162° F.; one half to five per cent. urea, at 162° to 170° F.; ten per cent. urea, at 168° to 172° F.; and when containing twenty-five per cent. urea it did not coagulate at all. Uric acid lowered the temperature of coagulation.

They also experimented with the soluble albuminous products of pancreatic digestion, and found the temperature of their coagulation to be about 128° to 134° F. The addition of urea and uric acid affected the coagulation temperature of these substances in the same manner as they did that of serum and egg albumen.

After diluting different urines with water to a constant low specific gravity (1005), in order to get rid, to some extent at least, of the effect of salts and urea, they still found the temperature of coagulation to vary. One set of urines coagulated at 160° to 173° F. (about the temperature at which serum albumen coagulates), a second set at 130° to 137° F. (about the temperature at which the products of digestion coagulate), while a third set coagulated at intermediate points (142° to 154° F.). This, in connection with the demonstrations of Stockvis and others that albuminous bodies may be absorbed from the stomach and intestines, and excreted unchanged in the urine, seems to point to the existence of two separate classes of albuminous substances in the urine: the albuminous products of digestion, and serum albumen, or a mixture of these.

Brunton and Power consider that many cases of albuminuria are probably almost or entirely due to disordered assimilation, and that in many cases of renal disease the loss of albumen is increased by disordered assimilation; that, therefore, further observations of the same nature as those they have pursued will be likely to prove valuable, in regard both to prognosis and treatment, inasmuch as they may result in enabling one to recognize those cases where the albuminuria is wholly

[1] St. Bartholomew's Hospital Reports, vol. xiii., 1877, page 283.

or partially due to disordered assimilation, and consequently to treat them more efficiently.

The authors found food to increase the quantity of albumen in the urine, or even to make it appear when it was absent during fasting. They also examined urines to discover the presence or absence of the digestive ferments, pepsine and ptyalin; and to ascertain whether other ferments, such as those of the pancreas and intestines, which are not usually present in urine, occur in albuminuria. In the urine of a patient suffering from chronic Bright's disease they failed to find pepsine, but observed a diastatic ferment, which might be ptyalin or the diastatic ferment of the pancreas; also the pancreatic ferment trypsin in very minute quantity. Paraglobulin was present in the same urine. In one case alcohol precipitated from the urine, deprived of albumen, a substance which gave reactions similar to those of peptone.

Action of Potassic Bicarbonate on the Urine. — Dr. Ralfe [1] has investigated the action of this salt on the reaction of the urine, and finds that it differs according as the alkali is taken before or after meals. He finds that when the bicarbonate is given in drachm doses one hour before dinner and one hour before supper, though the acidity of the urine is depressed on the day the bicarbonate is taken, there is, on the following day, a considerable increase as compared with the day preceding the administration. The reaction of the urine on the day of the experiment never remains alkaline more than two hours, while the acid passed in the following three hours amounts to but little less than the acid excreted in the corresponding five hours on the day preceding the experiment. The amount of uric acid excreted was increased on the days the bicarbonate was given. When, however, the bicarbonate was taken after food the acidity of the urine wholly disappeared, while on the succeeding day there was no marked increase in the acidity as compared with the day before. The urine remained alkaline up to the end of four hours after the administration of the salt, and no recovery of the acidity was noticed.

The results of these observations tend to show that the administration of alkaline bicarbonates when the stomach is empty increases the acidity of the urine, while their administration after a meal diminishes it. In view of these facts, he concludes that when these salts are given to diminish the acidity of the urine they should be given after food, while their use before meals is indicated in those cases in which the stomach itself contains free acids as a result of fermentative changes in undigested food. In this latter class of cases they would act chiefly as antacids.

Renal Calculus containing Indigo. — Dr. William M. Ord [2] gives a

[1] The Lancet, November 9, 1878, page 651.

[2] British Medical Journal, July 27, 1878, page 132.

clinical lecture upon the case. The patient, one of Dr. Bloxam's, died of malignant disease. The left kidney was reduced to the state of a lobulated cyst by a large medullary sarcoma, and contained a long, branched calculus, consisting chiefly of carbonate of lime. In the pelvis of the right kidney, which was increased in size, but otherwise normal, the indigo calculus was found. It had the shape of an oval disk, was seven eighths of an inch long, nine sixteenths broad, and one tenth thick. In color it was partly dark brown, in parts black; the black surface finely granular. It had the consistence of very hard chalk or slate. A careful examination led to the conclusion that it "consisted of a matrix of phosphates of lime and magnesia, with a little remains of blood clot; that the matrix was everywhere interpenetrated with indigo-blue with a little indigo-red; and that indigo-blue had been deposited in large proportion as an incrustation."

It is well known that normal urine contains a substance which, by its decomposition, furnishes indigo-blue with other products. Indigo has been found a few times as a sediment in urines which have undergone alkaline fermentation, but this is the first recorded case where it has been noticed in a calculus. There was nothing in the previous history of the patient to throw any light upon the cause of its deposition.

Indican. — W. Weber[1] employs a method of detecting indican in urine which is especially valuable in those cases in which the quantity of indican present is very small. The test is performed in the following manner: to thirty cubic centimetres of the urine in a large test tube is added an equal volume of concentrated hydrochloric acid, and the mixture warmed (not heated to boiling). One or two drops of dilute nitric acid increase the sensitiveness of the reaction. The mixture is then cooled by holding the tube in running water; a layer of ether two or three centimetres thick is poured upon it, and the whole is shaken well. After the ether has separated from the aqueous fluid there will be seen upon it a distinct blue froth, the color of which can be perceived, in those cases in which the quantity of indigo-blue is very small, by holding the tube between the eye and a white ground. If the blue color should not become evident after several minutes, a few drops of alcohol should be added. This will cause the froth to disappear, and the smallest quantity of indigo may then be recognized by the blue color of the ether solution. After a while the indigo-blue separates from the ether and forms a deposit between the two fluids, while the indigo-red remains dissolved in the ether. The author has only rarely failed to detect indican by this method.

Urobilin. — L. Disqué[2] has published the results of his investigations upon urobilin. They are as follows: The urobilin artificially prepared

[1] Archiv der Pharmacie, October, 1878, page 340.

[2] Chem. Centralblatt, No. 45, 1878, page 711, from Z. f. phys. Chem., 2, 259.

by Maly can hardly be considered a pure body. By the further reduction of bilirubin or urobilin there is obtained a colorless product which gives no absorption bands, and which upon treatment with chloroform on exposure to the air is changed to urobilin. This change takes place by the absorption of oxygen from the air. The presence of acids appears to favor it. In normal urine there is a body, evidently identical with Jaffé's chromogen, which corresponds in reactions to this reduced colorless urobilin. Urobilin itself is formed from this colorless compound by treating the urine with basic acetate of lead, alcohol, and hydrochloric acid. In pathological urines this colorless body is present with urobilin. The urobilin spectrum is much more marked if the urine is allowed to stand exposed to the air. In fresh normal urine the author could not distinguish the urobilin spectrum, as did Jaffé. On exposing the urine for a long time to the air, however, he frequently recognized the bands in concentrated urines. In pathological urines he found urobilin abundant in all diseases in which a very small quantity of urine was passed, especially in cases where there was free perspiration, and where there was stagnation of blood in the venous system, as in insufficiency of the heart, diseases of the lungs, especially pneumonia, etc. The quantity of urobilin is not proportional to the intensity of the fever. In very high fever there is often no urobilin to be found in the urine by means of the spectroscope. C. Gerhardt[1] has often observed urobilin in abundance in the brownish-red urines of jaundice which did not give Gmelin's (nitric acid) test for the biliary pigments.

Calcic Sulphate as a Sediment. — P. Fürbringer[2] reports a case in which the urine contained considerable white deposit of calcic sulphate. It occurred in the form of needle-shaped and prismatic crystals. The separation of calcic sulphate continued for several weeks. At first the sediment was passed with the urine; later, as the amount of sediment diminished, it was deposited only upon the cooling of the urine. The urine was diminished in amount, was dark colored, of high specific gravity, and strongly acid, but without abnormal constituents. The amount of sulphuric acid and calcium was increased. The author does not consider that the deposition of the calcic sulphate was due to this increase, since the latter still continued after the sediment ceased to appear. He believes that the deposit was caused by a diminution of the alkaline bases; the quantity of these not being sufficient to unite with the hydrochloric, phosphoric, and all the sulphuric acid to form soluble compounds, a portion of the sulphuric acid united with the calcium, which was present in large quantity, to form the sparingly soluble calcic sulphate.

[1] Maly's Jahresbericht, 1877, page 241.

[2] Maly's Jahresbericht, 1877, page 195, and Centralblatt für die medicinischen Wissenschaften, 1878, No. 14, page 254.

TOXICOLOGY.

The Effect of Certain Poisons on the Temperature of the Body. — A. Tamassia[1] has performed experiments with the view of determining the effect of phosphorus, arsenic, and strychnia upon the temperature of the body. Three grains of arsenious acid were injected into the thigh of a dog, and death ensued in thirty minutes. The temperature fell from 40° to 37.7° C. at the moment of death, a difference of 2.3° C. In a second experiment, where a dog died in seventy-five minutes after the injection of two grains of arsenious acid, the temperature fell 4.1° C. In a third experiment the temperature fell 3.2° C. The fall was at first about one tenth of a degree each minute; later, one tenth of a degree each two minutes up to the time of death. In the case of phosphorus the fall was more marked, and was about one tenth of a degree each fifteen minutes up to the time of death. Four grains were given to each of three dogs, and the temperature fell about equally in each case, the maximum being 4.7° C. In a rabbit which died in eight and one half hours the thermometer fell 7.1° C. In the case of strychnia there was a rise in temperature, at first about three tenths of a degree, later about one tenth of a degree, each minute. The mean rise was 3.2° C., death taking place in thirty to forty minutes. In view of these experiments the suggestion is made that the thermometer may hereafter prove a valuable aid to diagnosis in cases where the symptoms resemble those of acute poisoning.

THE ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK.[2]

Cold Abscess. — A very suggestive paper was read by Dr. Sayre on The Traumatic Origin of Subfascial, Deep-Seated, or Cold Abscess, in which he took issue with the opinion of all the leading surgical authorities of the day that this is as a rule due to a scrofulous diathesis, and stated that his views were more in accordance with those of Sir Benjamin Bell, published in 1792. In support of the ground that he maintained he gave a detailed narration of six cases which had occurred under his own observation, one of them being that of his son, Dr. Lewis Hall Sayre. In all of them, as he conclusively demonstrated, the trouble could be directly traced to a traumatic origin, which was of identically the same character in each instance. His idea was that during some unusual muscular exertion a portion of the attachment of a muscle (it might be an extremely minute part) was torn away, and that in consequence of this an escape of blood or serum (although perhaps a very small quantity) took place. There was thus occasioned the presence of an unusually large number of wandering cells among the tissues, and in the course of time these, undergoing degenerative changes, became transformed into pus, and

[1] Centralblatt für die medicinischen Wissenschaften, 1877, No. 50, page 922, and the Dublin Journal of Medical Science, November 1, 1878.

[2] Concluded from page 267.

were multiplied indefinitely. The existence of an accumulation of pus would necessarily produce a profound effect upon the system, and yet the true cause of the trouble often remained entirely undetected for a long time on account of its being so deep-seated.

Dr. Moore, of Rochester, one of the best known surgeons in the State, expressed himself as extremely pleased with Dr. Sayre's views. He was glad, he said, that he had lived to see the day when he could hear such a paper, and he believed that it would undoubtedly inaugurate a new era in this department of surgery.

Laparotomy. — Dr. J. P. Creveling, of Auburn, read a paper on Laparotomy for Intestinal Obstruction, in which he presented the merits of the operation as determined by statistics, and the chances of relief which it afforded. In calculating the value of any operative procedure, he said, it is not merely necessary to collect the whole number of cases in which it has been performed, with the result of each, but also to consider the conditions under which each operation was undertaken. He had collected a more or less complete history of eighty-three operations. In a case of his own, which he reported in detail, the abdomen was laid open by an incision through the *linea alba*, extending nearly from the umbilicus to the pubes. The omentum was found much inflamed, and firmly adherent to the abdominal walls by recent attachments. The peritonæum was also inflamed throughout the portion of its surface brought into view, as were the intestines themselves. The latter were seen to be immensely distended with gas when the omentum was detached and folded back. Some six or eight feet of the bowels, comprising most of the jejunum, were then removed from the peritoneal cavity; and when the hand was passed down the gut, it was found to be firmly fixed on the left side of the spinal column. A closer inspection discovered a fibro-omental band thrown across the bowel, attached at either end to the side of the spinal column, and completely occluding the calibre of the intestine. The band was three eighths to half an inch in width, and very unyielding. It was tied at two points, and then divided with the knife between them, when the bowels immediately became distended below. No blood entered the peritoneal cavity. The patient sank, and died soon afterward. Dr. Creveling attributed her death principally to opium narcotism, as, by mistake, a larger quantity of morphia than he ordered was administered hypodermically. At the completion of the operation there were no signs of severe shock or extreme exhaustion, and not a single symptom that seemed to indicate a rapidly fatal termination of the case. At all events, it was conclusively proved that operative procedure was the only means at command which would have offered any possibility of relief.

The author, for the sake of convenience, made two general divisions of the cases of intestinal obstruction tabulated by him, — *first*, those due to intussusception, and, *second*, those originating from all other causes, — and the conclusions that he arrived at were as follows: (1.) That abdominal section for intestinal obstruction is not only justifiable, but eminently proper. (2) That in cases of intussusception, as soon as milder means of disinvagination of the bowel fail, the operation should be promptly performed, provided the conditions are at all favorable. (3.) That in obstructions other than those caused

by intussusception the operation should be immediately done. (4.) That there is not as great an amount of danger in the operation as has been claimed by many.

Baptisia Tinctoria in Typhoid Fever. — A paper read by Dr. Laurence Johnson, of New York, on The Action of Baptisia Tinctoria in Typhoid Fever may be summed up as follows: Baptisia tinctoria, although formerly believed to possess antiseptic powers rendering it useful in diseases having a tendency to putrescence, has of late fallen into utter neglect with the regular profession. It is, however, extensively employed by the eclectics and homœopaths; the latter especially considering it very valuable in typhoid fever. It was to test its value in this disease that the experiments recorded were made. The preparation used was a tincture of the root, and it was administered in small doses (from one to five drops) at intervals of from one hour to three hours. The ordinary general measures of treatment, such as cool spongings, milk diet, and stimulants, when required, were not neglected, and any casual indications were promptly met and appropriately treated. Careful records of pulse and temperature were kept, and were shown in tables accompanying the paper.

Of the seven cases whose histories were detailed, three at least had at the beginning symptoms betokening attacks of severity. The pulse, temperature, and general condition of these patients left no room for doubt upon the point, yet the improvement under treatment was remarkable. In general, it may be stated that the cases, when treatment was well under way, were characterized by lack of symptoms sufficiently grave to occasion anxiety. There was a marked absence of delirium, and comparatively little diarrhœa, though at the beginning, in two or three of the cases, these were very troublesome features. The temperature seemed to be reduced by the drug, and in one case, where the morning temperature was as high as 106 ° F. when baptisia was employed for the first time, it never reached that point again, while the patient was fully convalescent in ten days. All the patients made good and comparatively quick recoveries.

Taken altogether, although the results obtained in such a small number of cases could not of course be considered conclusive, they appeared to establish a certain relation of cause and effect between the drug and the favorable course of the disease. The evidence on this point Dr. Johnson regarded as sufficient at least to encourage further trials, which he hoped no mere theoretical considerations would be allowed to prevent.

Fractures of the Femur. — Dr. Norman L. Snow, of Albany, read a paper on Some Practical Facts in Fracture of the Femur, verified by the Treatment, in Private Practice, of Twenty-Five Cases. All of the cases were treated by extension and counter-extension, the amount of force used depending on the obliquity of the fracture and the rigidity of the muscles. Dr. Snow remarked incidentally that he had been much surprised, when visiting some of the foreign hospitals a few years since, — more especially those in London, — to find fractures of the thigh under treatment without extension. One of the great benefits of this mode of treatment he considered to be the dispensing with tight bandaging, which was often the cause not only of delayed union, but of non-union from interference with the circulation of the part.

In children the author had found simple, uncomplicated fracture of the femur somewhat different in form, and thought that it required a modification in treatment, when compared with the same injury to the adult. It was more likely to be of the variety known as "green-stick," being bent at an angle and not broken; but if forced beyond this point, it gave way, — usually transversely to the long axis, — and the ends were found to be quite jagged and irregular. A high lounge, without side pieces, he regarded as preferable to a bed in the case of children, because when this was used there was nothing which they could get hold of and thereby attempt to draw themselves up towards a sitting posture, and, being high up, they seemed more content to lie on their backs. He spoke of the disadvantages of plaster dressing in the case of children, and also stated that he never felt at ease in applying it even in simple fracture occurring in the adult, for the reason that he thought that an examination should occasionally be made during the first four weeks, so that the surgeon could be satisfied that the ends of the fragments were in proper apposition. Besides, however nicely the dressing might be applied, in a few days there was usually found to be a space between the limb and its encasement, sufficient for distinct motion, and even displacement. He believed it to be of service, however, after enough callus had been thrown out, to keep the fractured ends in apposition, as an additional support, and also from the beginning, in cases of compound fracture and in fractures of diseased bones, when, from the sinuses present, a constant discharge is kept up.

Adulteration of Food and Medicine. — A State Board of Health. — Dr. E. R. Squibb, of Brooklyn, besides presenting a Note on the Estimation of Urea, and his views on the revision of the United States Pharmacopœia in 1880, read a paper which embodied a draught of a Proposed Law to prevent the Adulteration of Food and Medicine, and to establish a State Board of Health. To be effective, such a law, he said, must avoid certain points of difficulty met with in the British act of 1875. It must so clearly define the offense of adulteration in all its various forms as to be plain to the understanding. General definitions, which leave too much to be decided by the courts, must be avoided. The proposed law defines the various forms of adulteration, in language that is perfectly unmistakable, under nine distinct heads, and provides suitable penalties in a fine not to exceed two hundred dollars for the first offense, and a term of imprisonment for the second. Dr. Squibb believed that if the offense were well defined to the person who adulterates, the first effect would be to deter him. Failing in this, it would make the facts establishing the offense so clear as to economize the time of the courts and law officers, and leave to them to decide mainly upon the character, turpitude, and degree of the offense charged, and thus adjust and apply the penalty. Under such a law the offense would be easily proven by the debased article, and a plea of absence of intent to defraud or to injure would simply amount to a plea of ignorance, and would influence the courts not so much on the question of conviction (because the public offense of debasement had been committed) as on the question of the extent to which the adulterator should suffer in order to prevent others from similar acts through similar ignorance.

On account of the great objections to most of the ordinary provisions for

carrying such laws into effect, Dr. Squibb proposed the establishment of a state board of health, which should be selected by the governor, and should consist of two physicians, one chemist and physicist, one lawyer, and one business man. By it should be appointed a board of inspectors and board of prosecution, whose duty it should be to detect and prosecute violations of the law. It was recommended that the president and secretary should each receive salaries of $3000 annually, the other members $2000, and the inspectors and prosecutors $4000 each. Such a board as was provided for in the draught of the law accompanying his paper, Dr. Squibb stated, would cost the State about $80,000, not trusting to fines or other sources of revenue to reimburse any part of the expense, while the losses to the people by adulteration, in mere money value, were estimated at not less than $700,000 a year.

One very interesting portion of the proceedings was the evening session on the first day, when Prof. John C. Dalton read a paper on Scientific Ghosts, and Prof. H. D. Noyes, of the Bellevue Hospital Medical College, delivered an Address on Ophthalmology, with Illustrative Demonstrations. On this occasion a calcium light, under the direction of Dr. Wm. B. Fish, of Albany, contributed no little to the entertainment and instruction of the audience present.

The governor and both houses of the legislature, by a special resolution, were invited to be present at the delivery of the annual address by the president in the new assembly chamber, and all members of the legislature who were physicians in good standing were asked to attend the regular session and take part in the discussions of the society.

NAPHEYS'S MEDICAL THERAPEUTICS.[1]

The favorable reception with which this work has met has made a sixth edition already necessary, which contains many of the recent advances in therapeutics and important additions on many subjects, such as typhus fever, yellow fever, and children's diseases. But the vast number of prescriptions compounded of many drugs, more or less empirically, after the formulæ of many authorities, strike us as sometimes more confusing to the practitioner than in accordance with the simplicity and greater precision which are the *desiderata* of modern therapeutics.

FINLAYSON'S CLINICAL DIAGNOSIS.[2]

This useful manual contains contributions from Professor Gairdner of Glasgow, on the physiognomy of disease; Dr. Finlayson on case-taking,

[1] *Modern Medical Therapeutics.* A Compendium of Recent Formulæ and Specific Therapeutical Directions. By George H. Napheys, A. M., M. D., etc. Sixth Edition, enlarged and revised. Philadelphia: D. G. Brinton. 1879.

[2] *Clinical Diagnosis.* A Hand-Book for Students and Practitioners of Medicine. Edited by James Finlayson, M. D., Physician and Lecturer on Clinical Medicine in the Glasgow Western Infirmary, etc., etc. With eighty-five illustrations. Philadelphia: Henry C. Lea. 1878.

family history, and the symptoms of disorder in the various systems; Professor William Stephenson on disorders of the female organs; Dr. Robertson on insanity; Dr. Samson Gemwell on the sphygmograph and the physical examination of the chest and abdomen; and Dr. Joseph Coats on laryngoscopy and on the method of performing post-mortem examinations. The various sections are written with a view to the practical requirements in so condensed a volume, of which the value is greatly enhanced by the numerous illustrations and the extensive bibliography of the important treatises on the subjects which are thought most suitable for consultation. The American edition is a creditable reproduction of this work of the Glasgow physicians.

WORTHLESS PERIODICALS.

The warfare which we have waged unremittingly against the present tendency of the times to patronize cheap and local literature, instead of giving support to a few able and representative journals, is beginning to bear fruit, and we are glad to be able to publish the following comments on Dr. Billings's recent article from a journal whose position entitles its opinion to great respect, the *Chicago Medical Journal and Examiner*. We trust the time will soon come when physicians will appreciate the great advantages to be gained by concentrating their patronage upon a few representative journals, and the positive injury they do to medical literature by subscribing to a purely local journal "run" in behalf of some "interest."

"We could wish that Dr. Billings, or some other writer of equal ability, might have the courage further to divide the fifty-three survivors into two classes: the one to represent the journals which are conducted with a view solely to the advancement of science; the other to include those which are the pure and simple advertisements of individuals, medical schools, or dealers in drugs. . . .

"We have carefully perused the list of the fifty-three surviving journals, and have deliberately concluded that but from fourteen to twenty are of any permanent value to the profession, and worthy of general circulation or to be sent abroad and handed down to posterity as fit exponents of American medical periodical literature. Some of the others possess no value whatever apart from the gleanings which they regularly make from the crops carefully harvested by their more thrifty neighbors. Some are absolutely worthless, judged from any stand-point, and a few are undeniably worse than worthless, — they are dangerous and disgusting parasites upon the body medical.

"Of this latter class are the cheap publications which aim to be classed as medical journals, but which are really the clumsily disguised advertising sheets of certain pretentious drug-houses of doubtful reputation. . . .

"The sterling common sense of the mass of the physicians throughout the country must supply the remedy for this evil. We call upon every good man, who values his own reputation, and who cares for the elevation of the standards of the profession he has chosen, to contribute money for the support of the best medical journals, and of these only. In this connection we do not ask such to subscribe for this particular journal. The subject is one of such im-

portance that if the desired result could be completely attained by the suppression of this periodical, we would gladly make the sacrifice in the interest of the profession at large. . . .

"It is the duty and interest of every physician in the land to support heartily the best of our journals, and none other. Let it be understood that it is a stigma upon one's reputation that his name has appeared in an obscure advertising sheet, in connection with the indorsement of a questionable 'novelty' in drugs, or even as an author. And we call upon the editors of the respectable medical journals of America to refuse an exchange with every periodical of doubtful character and provincial position. That will be a bright day for medical journalism in the United States which sees the organization of an associated medical press, membership to which will be restricted to the managing editors of really good journals in existence, the privilege of membership and exchange to be granted only by unanimous consent of those already in enjoyment of these privileges. Under such an arrangement, advertising firms and book publishers might cease to offer a premium for mediocrity and worthlessness in the periodical medical literature of our land."

We have the material for producing as fine a set of journals as is to be found in any country. Why thus persistently hide our light under this bushel waste-basket of paper? We have never looked upon the editors' association as an organization possessing any special *raison d'être* An associated medical press embracing a few of the best journals, with a distinct object in view, would, we think, be a valuable agent in bringing about the desired reforms.

THE MEDICAL LITERATURE OF THE WORLD.

THE first number of the *Index Medicus*, edited by Dr. Billings, and published by Leypoldt, of New York, has made its appearance, and fully justifies the expectations held in regard to it. The object of this publication is to continue into the future the ground covered by the Index Catalogue of the Library of the Surgeon-General's Office at Washington in the past. It is hoped that Congress may have given the necessary appropriation in the sundries bill just passed. The hearty indorsement of the present enterprise by the profession will undoubtedly have influence in bringing about the much-desired object. The periodical is to be a monthly one, and will give a classified list of the literary work of the entire medical world of the previous month. The December number will contain a double index of authors and subjects for the year. A page of each number will be devoted to bibliographical notes and queries. The first of the series is issued as a specimen of the work proposed, and covers the last three months of 1878. The amount of information to be derived from a mere perusal of such a periodical can hardly be realized by one who is not familiar with the refinements to which this business of cataloguing has been carried. It is useful and interesting to *everybody*, whether he be a "bookworm" or not. The manner in which the publishers have done their part is satisfactory to the most exacting of the class we have just mentioned, and as the price is but three dollars a year we hope all who feel they can afford this small sum will aid in this truly public-spirited enterprise.

MEDICAL NOTES.

— Dr. R. H. Fitz has been appointed professor of pathological anatomy in the medical department of Harvard University. He will be a worthy successor in this department to the late Dr. J. B. S. Jackson. The curatorship of the Warren Museum of Anatomy, left vacant by the death of Dr. Jackson, has not yet been filled. Dr. H. H. A. Beach has received the appointment of visiting surgeon of the Massachusetts General Hospital, and Dr. W. S. Bigelow succeeds him as surgeon to out-patients.

— Many of the younger members of the profession will learn with regret that General Post, who has so long held the office of consul-general to Austria, will soon leave Vienna, his successor having already been appointed. For more than ten years General Post has been at Vienna, and, during that time, has always been ready and anxious to render any service which lay in his power to the American medical students who have so long made that city their head-quarters.

— M. About says that an election to the once-famous French Academy is no longer coveted by any writer of authority in France.

— Freund, of Breslau, goes to Strasburg to assume the chair vacated by Gusserow.

— Dr. Macewen, of Glasgow, whose observations are deemed authoritative by his British contemporaries, lays it down as a rule that an insensible person, who, being left from ten to thirty minutes, has contracted pupils, which dilate on his being shaken, without any return of consciousness, the pupils contracting again, can be under no condition but that of alcoholic coma. Dr. Macewen considers this test differentially diagnostic between alcoholism and apoplexy. The *Lancet* thinks more trial is needed before the test can be accepted. All things being equal, a drunken man will have a low temperature, while that of the apoplectic will be abnormally high.

— The *Practitioner* for December, 1878, states that the spirit of walnut (*spiritus nucis juglandis*) has been successfully used by Dr. E. Mackey in various forms of vomiting after other remedies had failed. It was given in drachm doses three times daily.

NEW YORK.

— The commencement of the medical department of the New York University was held at the Academy of Music on the evening of February 18th, and the number of graduates was exceptionally large, — two hundred and five. The usual prizes were awarded, and the valedictory address was delivered by William Carey Davies, of the graduating class, who took for his subject The Relations of the Medical Profession to Society. The address to the class was by the Rev. Dr. Howard Crosby, chancellor of the university, and was a very excellent effort of the kind. The advice given in the following extract from it might be appropriated with advantage by many who are not just receiving their diplomas: "My third jewel is from the Solomonian storehouse: 'Pleasant words are health to the bones,' which may also be read: 'A doctor's cheerfulness is often as good as his physic.' For if you would have pleasant words come naturally and abundantly, they must well up from a cheerful heart. I wish some one of you would occupy the leisure of the next year,

while you are waiting for patients, in studying the curative properties of cheerful manners in the sick-room, and then publish your discoveries in a manual for the professors to use with their classes. . . . . Men with long faces and who are fond of sighing should never become doctors. Medicines must sometimes be disagreeable, but doctors should never. A physician's face should be like sunshine, and his voice like wedding bells. Who could get well with Polyphemus as physician and Medusa as nurse?"

— Although the reports of disease among cattle in this neighborhood have no doubt been greatly exaggerated, it now seems that there has been enough to warrant measures of precaution against its spread, and the legislature has promptly passed a bill (which was at once approved by the governor) appropriating ten thousand dollars for the carrying out of a law enacted last year, entitled, "An act in relation to infectious and contagious diseases of animals." Professor Law, of Cornell University, and Gen. M. R. Patrick have been invested with full power to investigate and adopt suitable measures for the suppression of all disease among cattle, and have been pursuing the work with great activity.

Thus far pleuro-pneumonia has been almost entirely confined to a narrow strip on Long Island and the southern part of Westchester County. In the mean while the Brooklyn Board of Health has been waging war against the stalls where swill-fed cows are crowded together in the filthiest quarters at Blissville, Long Island; while in New York, Dr. Liantard, consulting veterinary surgeon, and Dr. J. B. White, milk inspector, of the board of health, have been making a thorough investigation of the cows owned in the city, as well as an examination of the milk sent from the country. Up to February 18th one cow had been found suffering from acute pneumonia, and only one other from pleuro-pneumonia.

— During the coming spring the Academy of Medicine expects to put up a considerable addition to its present building, and will thus be able to secure a much larger and commodious hall for its own meetings and those of other professional and scientific societies.

— The average number of cases of scarlet fever reported each week remains about two hundred, and of diphtheria about sixty.

PHILADELPHIA.

— The committee of the County Medical Society on hygiene and the relations of the profession to the public have, among other questions now under consideration, that of the expediency of obtaining legislation authorizing the confinement of inebriates, and it is expected that a draught of a law having this object in view will be presented to the legislature at its present session.

— At a recent meeting of the Philadelphia Pathological Society, Dr. A. S. Reynolds exhibited a specimen of a double uterus, both sides being functionally active. Menstruation began at fifteen years; the patient had one child six years later, and a second at twenty-four years, just two weeks before death from typho-malarial (?) fever. Each confinement was followed by profuse post-partum hæmorrhage. The uterus appeared to be about normal in size and weight, but was found to be double in all its parts above the external os. The

uterus in the line of the genital canal was unicornous and two and one half inches in length; involution from the last pregnancy was not quite complete. Beginning at the margin of the external os on the right side, and running at right angles to the median line, is a canal, but little less in diameter than the normal cervix, three fourths of an inch in depth, expanding into a triangular cavity of the body of the second uterus, which measured one and one half inches in length, two in circumference, and one inch in diameter. From the fundus a normal Fallopian tube was given off; the ovary exhibited several cicatrices. It was believed that the constant menorrhagia and post-partum hæmorrhages were in some way produced by the malformation. As both divisions were functionally active, double conception was possible.

— Dr. Chas. K. Mills reported a case of fibroma of the brain, compressing portions of the first and second right frontal convolutions mainly, with anterior part of convolution of corpus callosum, and also the corpus callosum itself to a slight extent. The motor phenomena (weakness of all the extremities, but particularly the left arm, involuntary evacuation of bladder and rectum, loss of sight, etc.) were believed to be inhibitory and not direct. The general temperature was slightly below the standard of health as a rule, but the day before death was 100.3° to 100°.4 F.

Some interesting observations in cerebral thermometry were made, which appeared to prove that a positive value may be placed upon local thermometry in the regional diagnosis of intracranial tumors. The temperature of the surface near the seat of the growth is higher than that of other regions (about 1.5° in this case), probably owing to the associated hyperæmia and inflammation.[1]

Dr. Mills also reported at a recent meeting of the County Medical Society three cases of brain disease with paralysis, which apparently agreed with the current theory of localization.

LETTER FROM NEW ORLEANS.

YELLOW FEVER.

Mr. Editor,— Yellow fever ceased here as an epidemic in November, but did not disappear until the early part of January. Since then we have had ice and snow, with a temperature of 20° F., and it is altogether probable that the unusual severity of this winter will effectually destroy all the fever infection in the city. This conclusion is warranted by the entire absence of the fever in 1861, following the severe winter of 1860–1; and by the same non-appearance in 1877, after a severe winter, the only case of that year having come through the quarantine as a "walking case," by practicing deception on the quarantine physician.

With all the destruction of human life (4046 deaths for New Orleans alone) and the pecuniary losses inflicted by the epidemic, it has not been an unmixed

[1] The reader is referred, for the history of this case, to a clinical lecture by Professor Da Costa in the Medical and Surgical Reporter, vol. xxxviii., page 414, *et seq.*; and for the subsequent details and autopsy, to Dr. Mills's report in the Philadelphia Medical Times, vol. ix., page 184 to 191.

evil, for it has contributed more to the actual "reconstruction" of our lately dissevered country than all the political tinkering since 1865. But, though this is the general conviction and the value of the gain is fully appreciated, there is no desire to take another such benefit.

Our general assembly adjourned on the 1st inst., having sat out half the time allowed by law. Much was expected in respect to sanitary legislation, and nothing performed. Shortly before the meeting of the legislature, an effort was made to enlist the medical profession throughout the State in a combination to influence their representatives in favor of certain bills promotive of the sanitary welfare of our whole people. A circular, containing the text of the bills and some explanatory remarks, was extensively disseminated among medical men, and it was hoped that the lesson of the recent epidemic would not be lost to the legislative memory. This circular was sent out by authority of the State Medical Association, through a committee appointed to promote state medicine.

As the organization of our board of health is peculiar, a few words on the subject may here be appropriate and interesting to your readers. It consists of nine members, and formerly the law declared that "they should be chosen with reference to their known zeal in favor of a quarantine system." This condition was struck out two years ago, when the law underwent several other changes. Previous to that time six of the members had been appointed by the governor and three had been elected by the authorities of New Orleans, and all held office for one year only. The new act provided that the term of office should be extended to four years, but it was so arranged that four and then five members should go out every alternate year; and at the same time the city was given five members, instead of three. The reason of this mixed representation on the board is found in its compound duties. It is charged with the execution of the quarantine laws and the superintendence of the several quarantine stations, and besides with the sanitary supervision of the city of New Orleans. Though the board is held responsible for the administration of quarantine, the officer at the principal station, on the Mississippi River, is appointed by the governor, and is allowed to choose his own assistant. Every effort to change the law, so as to give this appointment to the board of health, has failed, because such a measure would diminish the governor's patronage. The consequence is that the present incumbents at that station were not selected for any fitness, but by favor of the governor. The chief officer lately testified before the congressional yellow fever commission that he had not seen a case of yellow fever since 1855 up to the time of his appointment, late in 1877. His assistant was not at all more familiar with the disease, and it is not strange that the Emily B. Souder was allowed to pass with a walking case of yellow fever aboard, on May 22, 1878. Another case was developed in the crew soon after her arrival at the city, and from these two our great epidemic is supposed to have originated.

Heretofore the plan of disinfection at our quarantine stations has not required the unloading of vessels, and it is clear that the work could not be thoroughly done in a hold filled with boxes of sugar or bags of coffee. Besides, nothing of the kind was done until quarantine was declared against certain infected ports by the governor's proclamation, generally taking effect in May,

unless there happened to be cases of some infectious disease aboard. It is plain, therefore, that infected cargoes from ports never visited by frost might be brought to our city without any disinfection whatever at a time of the year when we have had several weeks of temperature above 80° F. With such quarantine regulations, it is unnecessary to invoke the doctrine of the domestication of yellow fever in New Orleans, or to pretend that it depends on some undefined local conditions, which are always found wanting the next season after a severe winter.

The sanitary functions of our board of health in the city of New Orleans, together with some other points suggested by the letter of your correspondent to our *Medical Journal* in November last, must be reserved for a future communication, as this is already sufficiently prolonged. S. S. H.

NEW ORLEANS, *February* 6, 1879.

REPORTED MORTALITY FOR THE WEEK ENDING FEBRUARY 15, 1879.

Cities.	Population estimated for July, 1879.	Reported Deaths in each.	Annual Death-Rate per 1000 during the Week.	Percentage of total Deaths from				
				The Principal "Zymotic" Diseases.	Pneumonia.	Diphtheria and Croup.	Scarlet Fever.	Diarrhœal Diseases.
New York	1,085,000	554	26.86	21.48	9.92	3.79	12.44	0.90
Philadelphia	—	349	—	—	15.18	11.52	11.52	—
Brooklyn	564,400	212	21.08	16.98	13.21	7.08	4.25	2.36
St. Louis	—	103	—	8.73	12.61	4.87	—	—
Chicago	—	136	—	14.01	8.82	8.01	1.44	—
Baltimore	365,000	160	22.86	13.75	10.63	6.88	3.75	—
Boston	356,500	155	22.68	18.71	12.26	9.68	1.29	1.29
Cincinnati	—	—	—	—	—	—	—	—
District of Columbia	160,000	82	26.71	12.17	19.50	3.65	6.09	1.22
Pittsburgh	—	67	—	19.40	20.88	11.74	1.49	—
Milwaukee	—	40	—	12.50	10.00	10.00	—	—
Providence	101,000	41	21.15	31.71	4.88	17.07	12.20	—
New Haven	—	22	—	—	27.27	—	—	—
Charleston	—	35	—	5.71	5.71	2.86	—	—
Lowell	53,300	19	18.58	21.05	5.26	5.26	5.26	—
Worcester	52,500	19	18.87	10.53	15.80	5.26	—	—
Cambridge	51,400	21	21.29	14.29	14.29	4.76	—	—
Fall River	48,500	—	—	—	—	—	—	—
Lawrence	38,200	15	20.48	13.33	33.33	—	—	—
Lynn	34,000	13	19.94	7.69	23.08	—	—	—
Springfield	31,500	6	9.93	33.33	16.67	16.67	16.67	—
New Bedford	27,000	—	—	—	—	—	—	—
Salem	26,400	6	11.85	33.33	33.33	16.67	16.67	—
Somerville	23,350	12	26.80	25.00	16.67	16.67	8.33	—
Chelsea	21,800	3	7.52	—	33.33	—	—	—
Taunton	20,200	4	10.32	25.00	25.00	25.00	—	—
Holyoke	18,200	6	17.19	33.33	16.67	16.67	—	—
Gloucester	17,100	9	27.44	11.11	11.11	11.11	—	—
Newton	17,100	3	9.15	33.33	33.33	—	—	—
Haverhill	15,300	4	13.63	25.00	25.00	25.00	—	—
Newburyport	13,500	4	15.45	—	—	—	—	—
Fitchburg	12,500	6	25.03	—	—	—	—	—

Two thousand and forty-six deaths were reported: 382 from consumption, 214 from pneumonia, 112 from scarlet fever, 90 from diphtheria, 78 from bronchitis, 32 from croup, 26 from whooping-cough, 23 from typhoid fever, 14 from diarrhœal diseases, 14 from cerebro-spinal meningitis, 12 from erysipelas, two from measles, none from small-pox. Allowing for Cincinnati, not reported, there is shown an increased total mortality and from pulmonary diseases, diphtheria, cerebro-spinal meningitis, and measles; about the same from diarrhœal diseases, and a decrease from the remaining "zymotic" diseases. Philadelphia reported 71 deaths from acute pulmonary diseases, not included in the above.

From *bronchitis*, 35 deaths were reported in New York, 14 in Chicago, nine in Brooklyn, seven in Pittsburgh, four in St. Louis and Baltimore, two in Milwaukee and Charleston, one in District of Columbia. From *whooping-cough*, 18 in New York, three in Brooklyn, two in Baltimore, one in District of Columbia, Pittsburgh, and Lowell. From *typhoid fever*, seven in Boston, five in Philadelphia, three in Chicago and Pittsburgh, two in Brooklyn, one in Baltimore, Lawrence, and Holyoke. From *cerebro-spinal meningitis*, three in Chicago, two in New York, one in St. Louis, Baltimore, Providence, Charleston, Lowell, Worcester, Cambridge, Lawrence, and Lynn. From *erysipelas*, three in New York, St. Louis, and Boston, two in Brooklyn, one in Cambridge. From *measles*, one in New York and Baltimore. Baltimore reported one from *trismus nascentium*. In Washington and Savannah the death-rate among the colored population was double that of the whites. The returns from sixteen of the nineteen cities in Massachusetts, with a population of 763,850, showed a decreased mortality from whooping-cough, about the same from erysipelas and diphtheria, and increased from the other zymotic diseases, particularly typhoid fever. Acute diseases of the respiratory organs were very prevalent in Nashville, where no deaths from "zymotics" were reported, in Louisville, Richmond, San Francisco, and in New Orleans. Scarlet fever was prevalent in Buffalo and Richmond; diphtheria in Buffalo and San Francisco, influenza in Mobile, and catarrh in Buffalo. No deaths from diphtheria or scarlet fever in New Orleans.

Sergeant Purssell's meteorological record for the week, in Boston, is as follows: —

Date.	Barometer.	Thermometer.			Relative Humidity.				Direction of Wind.			Velocity of Wind.			State of Weather.			Rainfall. (Melted Snow.)	
	Daily Mean.	Daily Mean.	Maximum.	Minimum.	7 A. M.	2 P. M.	9 P. M.	Daily Mean.	7 A. M.	9 P. M.	2 P. M.	7 A. M.	2 P. M.	9 P. M.	7 A. M.	2 P. M.	9 P. M.	Duration in Hours.	Amount in Inches.
Feb. 9	30.091	24	35	17	71	61	52	61	S	W	NW	12	16	13	F	F	C	3.7	0.05
" 10	29.443	18	27	8	79	34	57	56	NW	NW	S	14	10	6	C	C	H	—	—
" 11	29.939	43	51	21	70	59	84	71	SW	SW	W	14	20	23	F	F	R	—	—
" 12	29.351	38	52	29	100	66	53	73	S	W	W	27	16	22	R	O	C	17.2	1.53
" 13	29.844	25	35	17	75	40	57	57	W	W	W	7	19	15	C	F	C	—	—
" 14	30.145	15	23	11	61	32	55	49	NW	W	NW	10	10	9	C	C	C	—	—
" 15	30.384	16	26	7	57	32	35	41	W	W	W	8	7	2	C	C	C	—	—

	Barometer.	Thermometer.	Humidity, Saturation being 100.	Wind.	Rain.
Weekly Summary.	Mean 30.033	Mean 23.6	Mean 58.6	Total miles traveled, 2130.	Total amt. 1.58 in.
	Max. 30.491	Max. 52	Max. 100		
	Min. 29.132	Min. 7	Min. 32	Prevailing direction, W.	Duration, 21 hrs. 10 min.
	Range 1.359	Range 45	Range 68		

Barometer corrected for temperature, elevation, and instrumental error.

Explanation of weather symbols: O., cloudy; C., clear; F., fair; G., fog; H., hazy; R., rain; S., snow; L. S., light snow; T., threatening.

Station: Latitude 42° 21′; longitude 71° 4′; height of instrument above the sea, 77.5.

For the week ending January 18th in 149 German cities and towns, with a population of 7,532,088, the death-rate was 27, an increase from 24.8 of the preceding week, referable chiefly to pulmonary diseases. Of 5848 deaths, 552 were from consumption, 425 from acute diseases of respiratory organs, 178 from diphtheria and croup, 85 from scarlet fever, 50 from measles, 46 from whooping-cough, 27 from puerperal fever, three from typhus, one from small-pox. The death-rates were in Berlin 27.4; Bremen 26; Breslau 31.2; Carl-ruhe 17.7; Cologne 29.7; Dantzic 40.7; Dresden 29.8; Frankfort-on-the-Main 20.1; Hamburg 29; Leipsic 24.6; Munich 33.9.

The death-rate for the week ending February 1st, for the twenty large English towns, with a population of 7,383,999, was 26.2, a trifle greater than for the previous week: for London 26.2, Bristol 20.4, Birmingham 27.4, Liverpool 35.7, Manchester 34.9, Plymouth 16.9. Pulmonary diseases, scarlet fever, and whooping-cough were most prevalent; small-pox

was fatal only in London, where there were 28 deaths, an increase of 4 from the previous week. Small-pox was also fatal in Dublin, where the death-rate from all diseases was 49; in Edinburgh 25 and in Glasgow 29. At last accounts, fevers were causing great mortality in India, with fewer deaths from cholera. Small-pox was prevalent in Calcutta, Paris, Vienna, Budapesth, and Venice, very rife in St. Petersburg; there were a few cases in Brussels, Geneva, and Bucharest. Diphtheria was very prevalent in Paris and Vienna, less so in the German cities, and somewhat in Egypt and Italy. Typhoid fever prevailed extensively in Paris and St. Petersburg, and to a certain extent in most of the continental cities.

Great destitution and mortality continue in Brazil, with a hope of beginning abatement. The plague is reported to be causing less anxiety to those cities of Europe whose sanitary condition is so bad as to make an importation of the disease much to be dreaded.

Circular. — Owing to the crowded state of the columns of the Boston Medical and Surgical Journal, and in view of the fact that many of the medical societies are greatly in arrears in their reports intended for publication, the editor, while availing himself of the opportunity to thank them for their valuable support, would take the liberty to suggest that a greater condensation of the reports of cases presented by individual members for publication would lead to mutual benefit. It is thought that the main points of interest in a case can usually be presented in half of a printed page. Collections of similar cases prepared with special care, from which general conclusions may be drawn, and papers of importance can be printed in full, as heretofore, as original articles. By some such expedient the proceedings would appear more promptly than they do at present, and their interest and value would, we think, be increased.

Gynæcological Society of Boston. — The one hundredth regular meeting will be held at the Medical Library Rooms, 19 Boylston Place, first Thursday of March, at two o'clock, P. M.

The following papers are promised: Menstruation, by R. P. Loring, M. D. My Stem Pessary, by E. Cutter, M. D.

Profession invited. Henry M. Field, M. D., *Secretary.*

Jefferson Medical College. — The summer course of lectures will begin on Monday, March 24, 1879, and will be continued until Saturday, June 14th.

Books and Pamphlets Received. — Diphtheria: Its Nature and Treatment, Varieties, and Local Expressions. By Morell Mackenzie, M. D. Lond. Philadelphia: Lindsay and Blakiston. 1879. (A. Williams & Co.)

The Influence of Posture on Women in Gynecic and Obstetric Practice. By J. H. Aveling, M. D., Physician to the Chelsea Hospital for Women. Philadelphia: Lindsay and Blakiston. 1879. (A. Williams & Co.)

Naval Hygiene. Human Health and the Means of Preventing Disease. By Joseph Wilson, M. D., Medical Director United States Navy. Second Edition. With Colored Lithographs, etc. Philadelphia: Lindsay and Blakiston. 1879. (A. Williams & Co.)

Annual Report of the Butler Hospital for the Insane. Providence. 1879.

Twelfth Annual Report of the Minnesota Hospital for the Insane. Minneapolis. 1879.

First Annual Report of the Presbyterian Eye and Ear Charity Hospital. Baltimore, Md. 1879.

Diphtheria and its Treatment. Epidemic of 1875–76. Meriden, Conn. By Chas. H. S. Davis, M. D. (Reprint.) Louisville, Ky. 1879.

Charter and By-Laws of the Pittsburgh Academy of Medicine and School of Anatomy. Pittsburgh. 1878.

New York Academy of Medicine. 1879. Addresses. Dr. Samuel S. Purple's Valedictory. Dr. Fordyce Barker's Inaugural.

A Case of Progressive Muscular Atrophy with Sclerosis of the Lateral Columns. By Dr. J. C. Shaw, President. New York Neurological Society, etc. (Reprint.) Chicago. 1879.

Atthill's Diseases of Women. Fifth edition revised and enlarged, with Illustrations. Philadelphia: Lindsay and Blakiston.